FIG.1

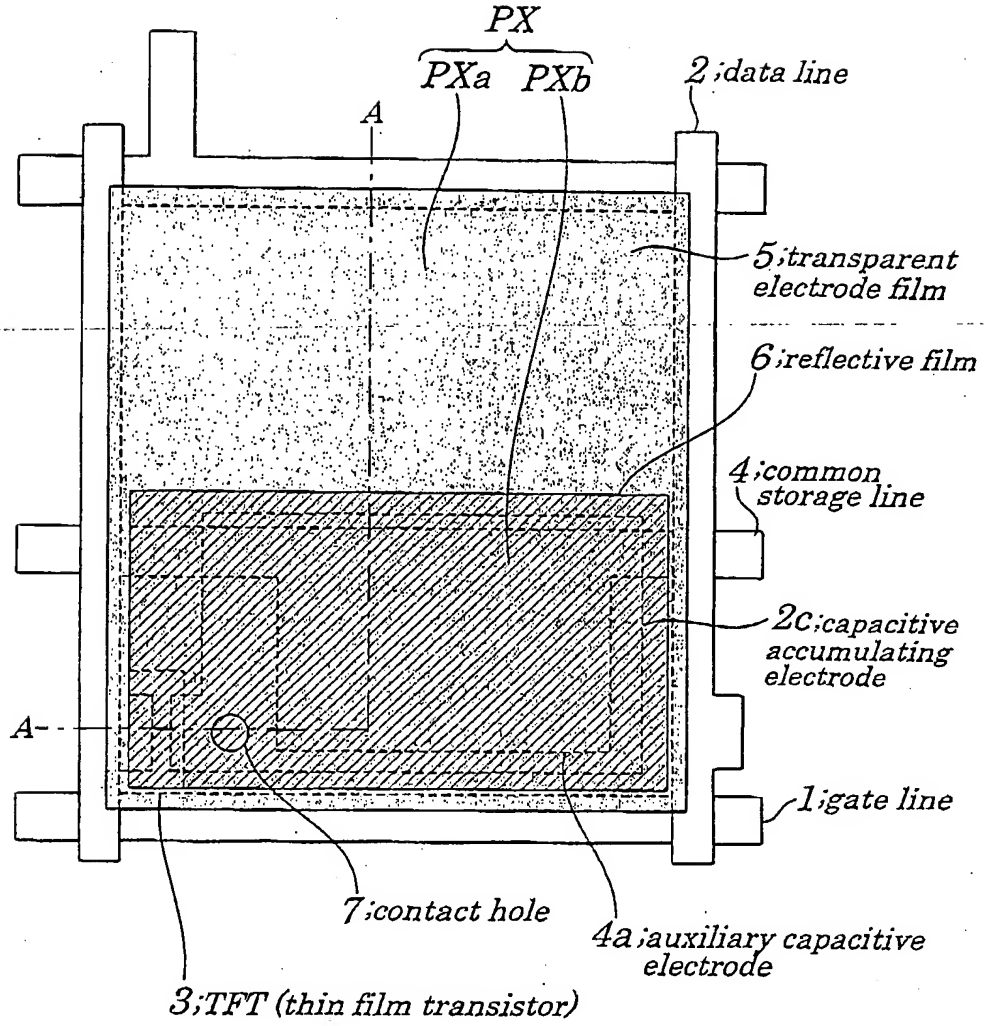
PX
PXa
PXb
2;data line
A
5;transparent electrode film
6;reflective film
4;common storage line
2c;capacitive accumulating electrode
A
1;gate line
7;contact hole
4a;auxiliary capacitive electrode
3;TFT (thin film transistor)

FIG.2

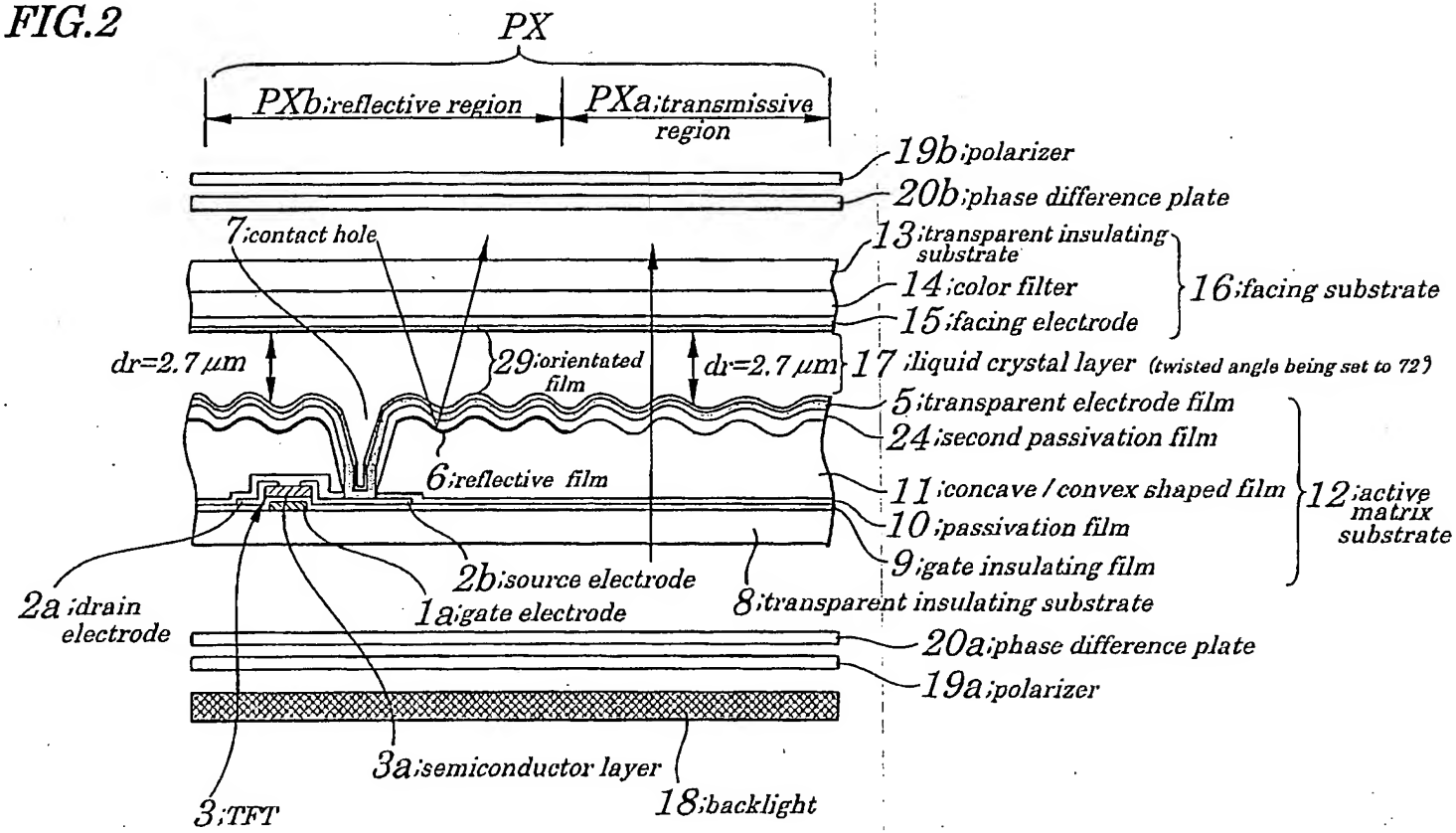
PX
PXb;reflective region
PXa;transmissive region
19b;polarizer
20b;phase difference plate
7;contact hole
13;transparent insulating substrate
14;color filter
15;facing electrode
16;facing substrate
dr=2.7 μm
29;orientated film
dr=2.7 μm
17;liquid crystal layer (twisted angle being set to 72°)
5;transparent electrode film
24;second passivation film
6;reflective film
11;concave / convex shaped film
12;active matrix substrate
10;passivation film
9;gate insulating film
2b;source electrode
2a;drain electrode
1a;gate electrode
8;transparent insulating substrate
20a;phase difference plate
19a;polarizer
3a;semiconductor layer
18;backlight
3;TFT

FIG.3A

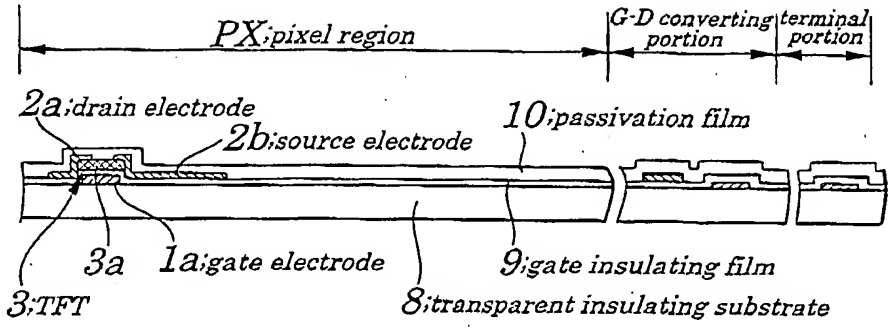

FIG.3B

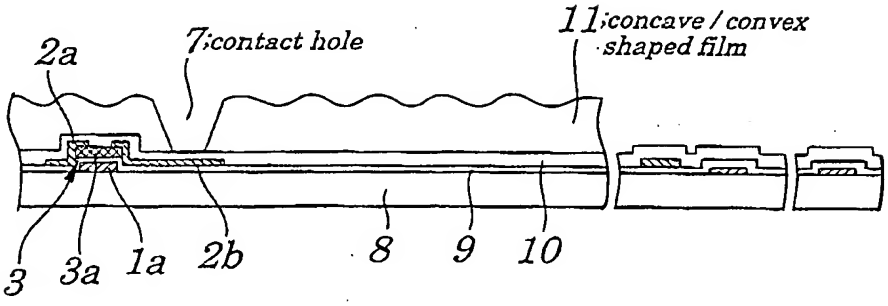

FIG.3C

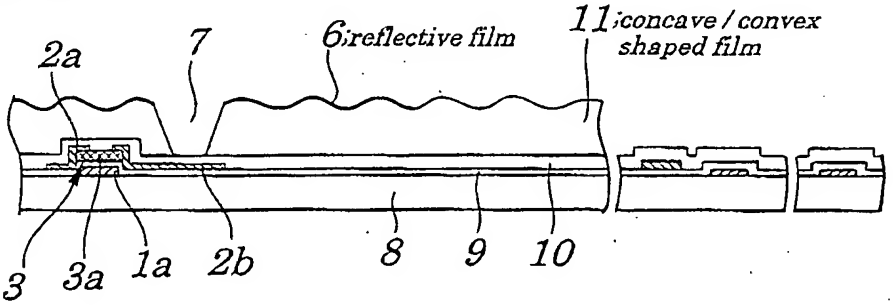

FIG.4A

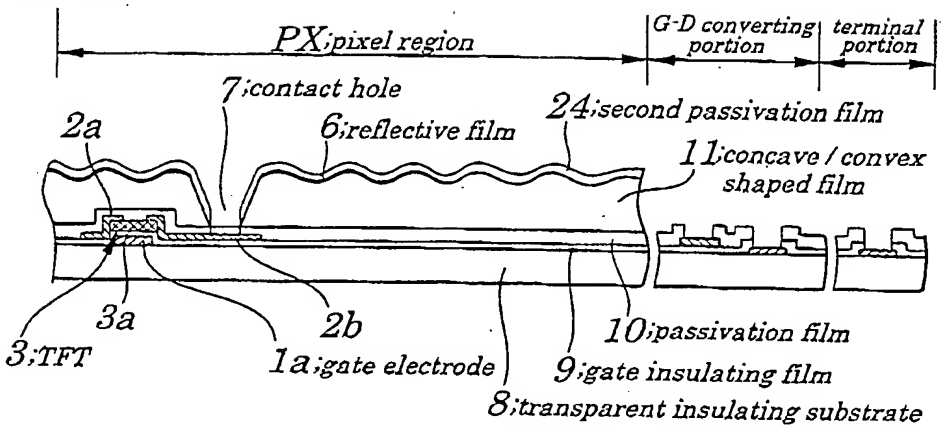

FIG.4B

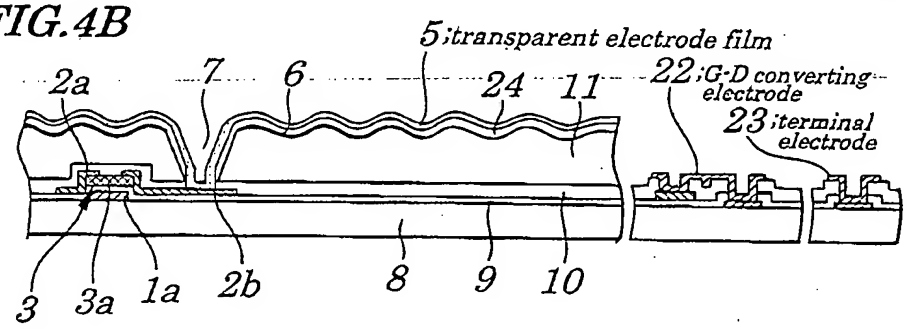

FIG.5

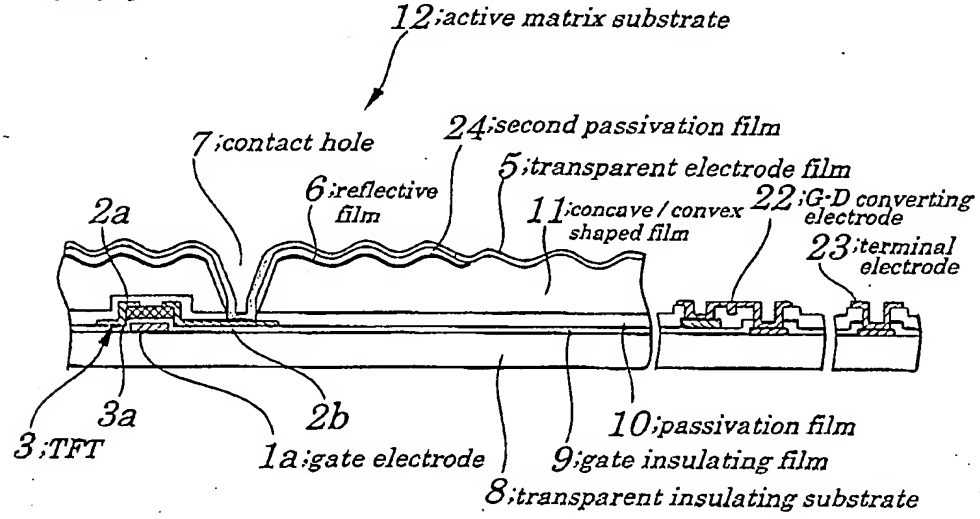

FIG.6

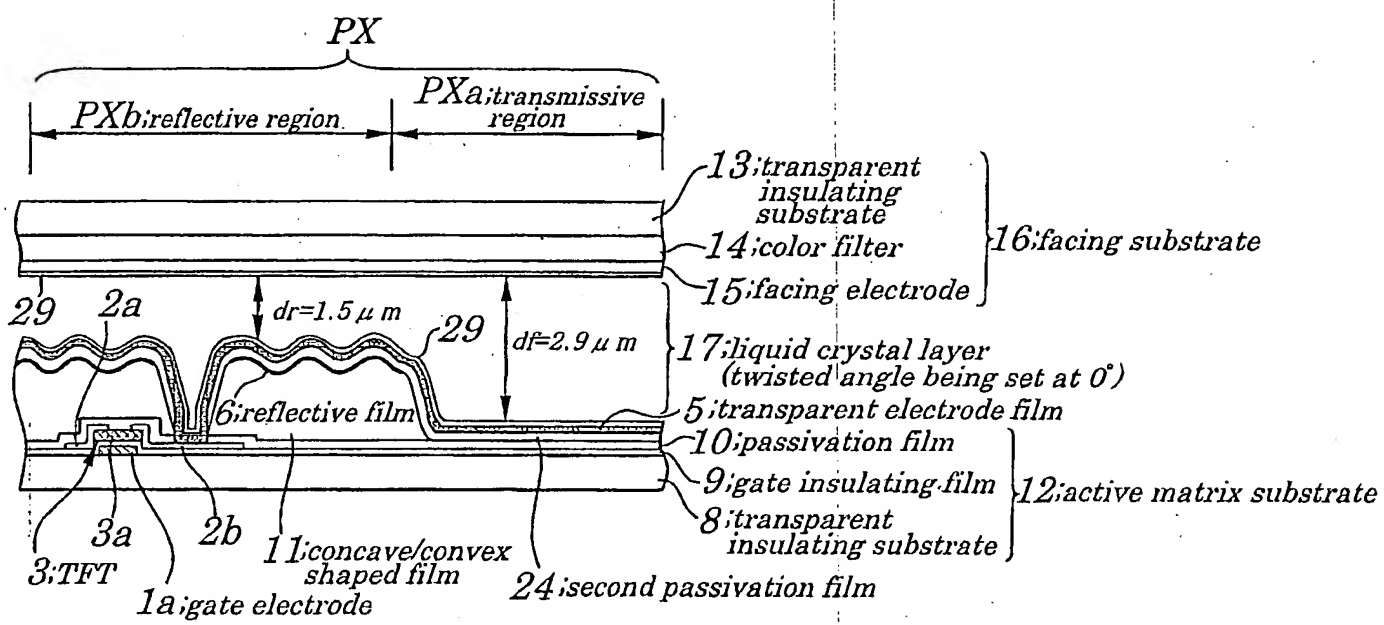
PX
PXb;reflective region
PXa;transmissive region
13;transparent insulating substrate
14;color filter
15;facing electrode
16;facing substrate
29
2a
dr=1.5 μ m
29
df=2.9 μ m
17;liquid crystal layer (twisted angle being set at 0°)
6;reflective film
5;transparent electrode film
10;passivation film
9;gate insulating film
12;active matrix substrate
8;transparent insulating substrate
3a
2b
11;concave/convex shaped film
3;TFT
1a;gate electrode
24;second passivation film

FIG. 7

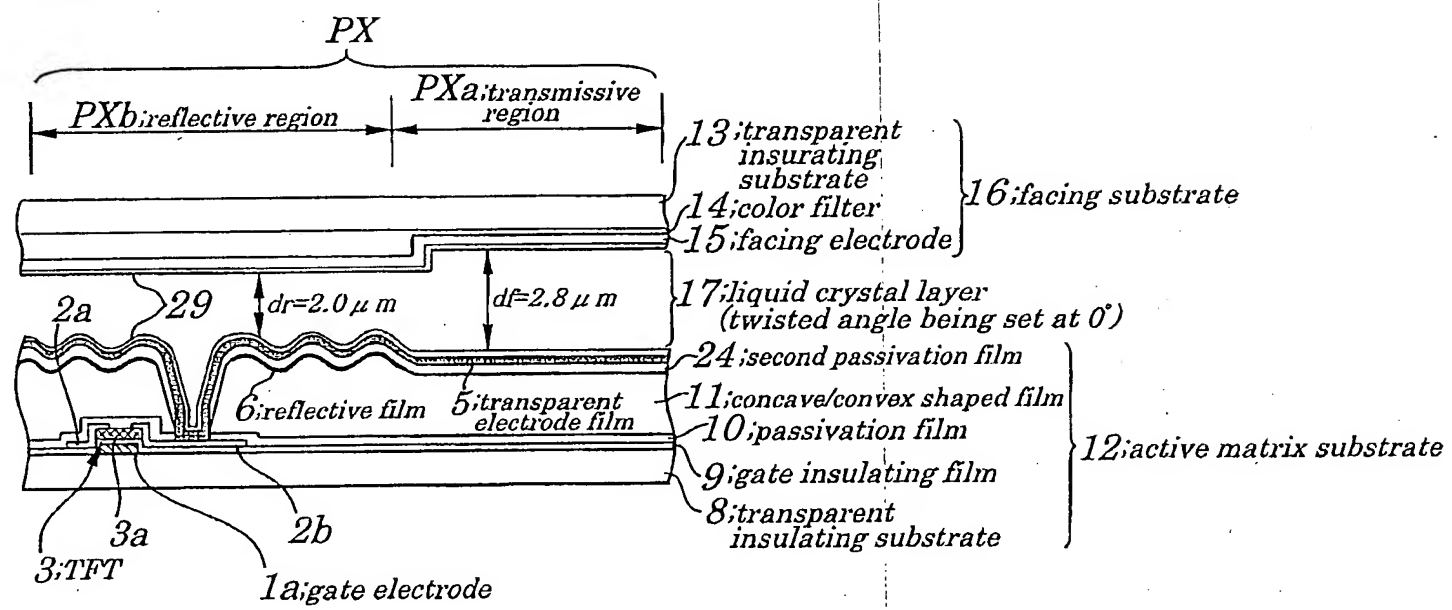
PX
PXb;reflective region
PXa;transmissive region
13;transparent insurating substrate
14;color filter
15;facing electrode
16;facing substrate
17;liquid crystal layer (twisted angle being set at 0°)
dr=2.0 μm
df=2.8 μm
2a
29
24;second passivation film
11;concave/convex shaped film
6;reflective film
5;transparent electrode film
10;passivation film
9;gate insulating film
8;transparent insulating substrate
12;active matrix substrate
3a
2b
3;TFT
1a;gate electrode

FIG.8

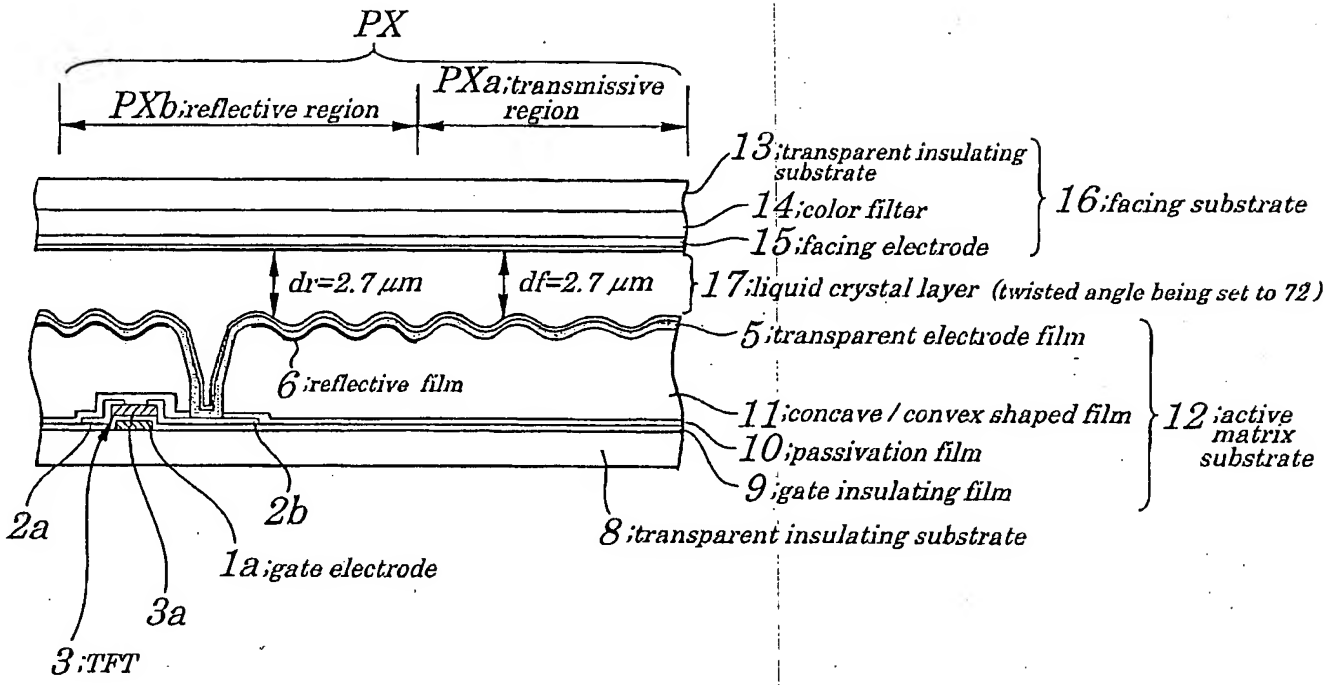
PX
PXb;reflective region
PXa;transmissive region
13;transparent insulating substrate
14;color filter
15;facing electrode
16;facing substrate
dr=2.7 μm
df=2.7 μm
17;liquid crystal layer (twisted angle being set to 72)
5;transparent electrode film
6;reflective film
11;concave / convex shaped film
10;passivation film
9;gate insulating film
12;active matrix substrate
2a
2b
1a;gate electrode
3a
3;TFT
8;transparent insulating substrate

FIG.9A

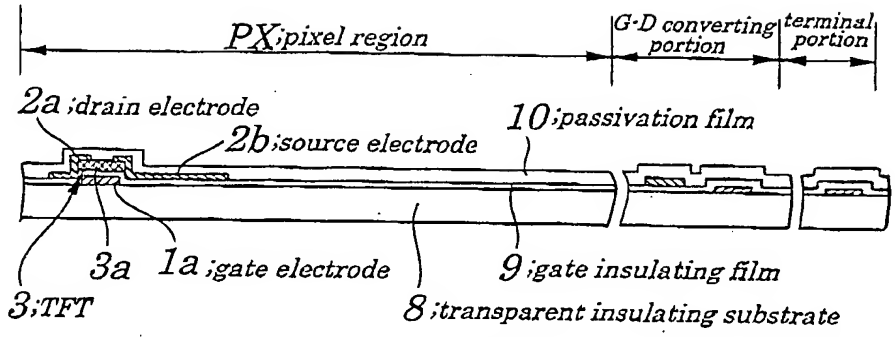

FIG.9B

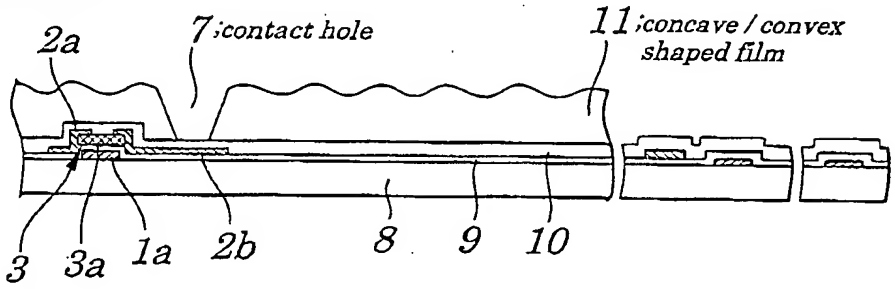

FIG.9C

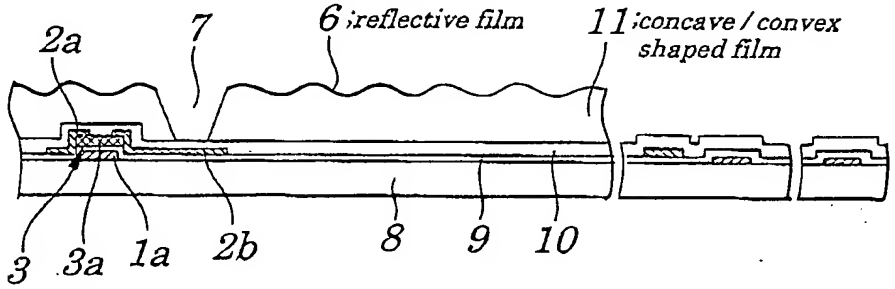

FIG.10A

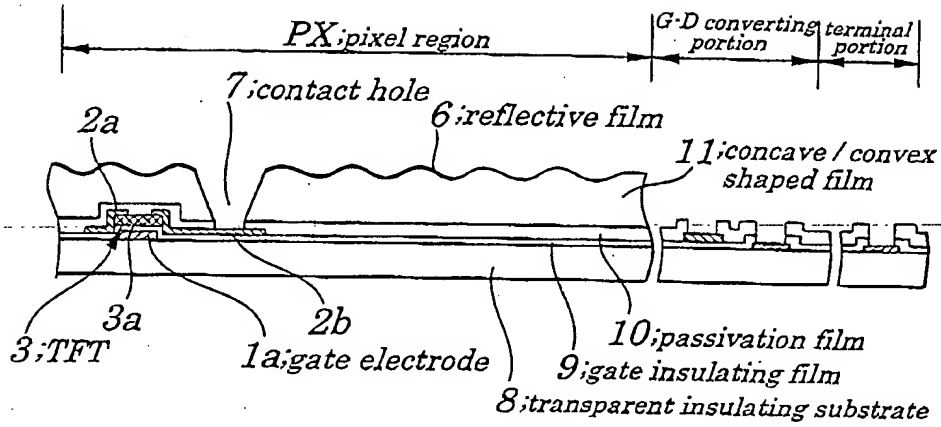

FIG.10B

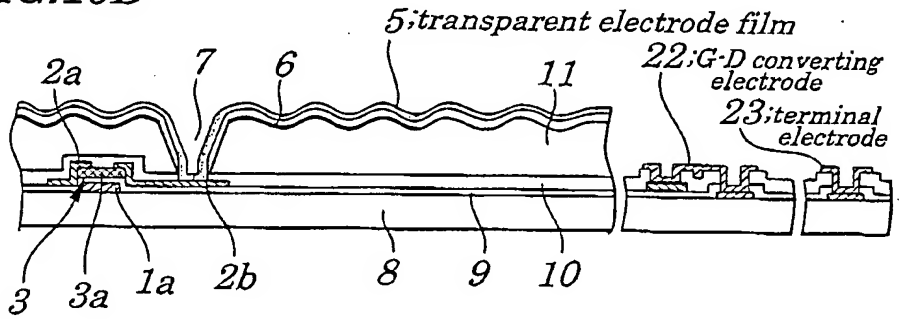

FIG.11

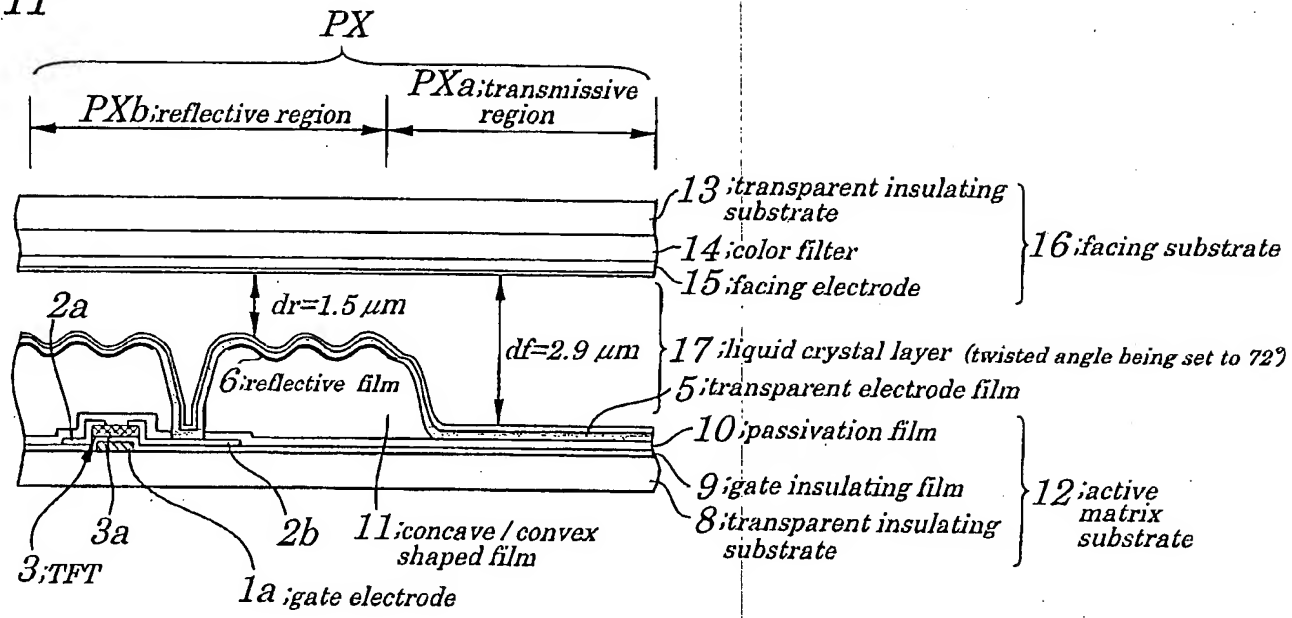
PX
PXb;reflective region
PXa;transmissive region
13;transparent insulating substrate
14;color filter
15;facing electrode
16;facing substrate
2a
dr=1.5 μm
df=2.9 μm
17;liquid crystal layer (twisted angle being set to 72°)
6;reflective film
5;transparent electrode film
10;passivation film
9;gate insulating film
8;transparent insulating substrate
12;active matrix substrate
3a
2b
11;concave / convex shaped film
3;TFT
1a;gate electrode

FIG.12

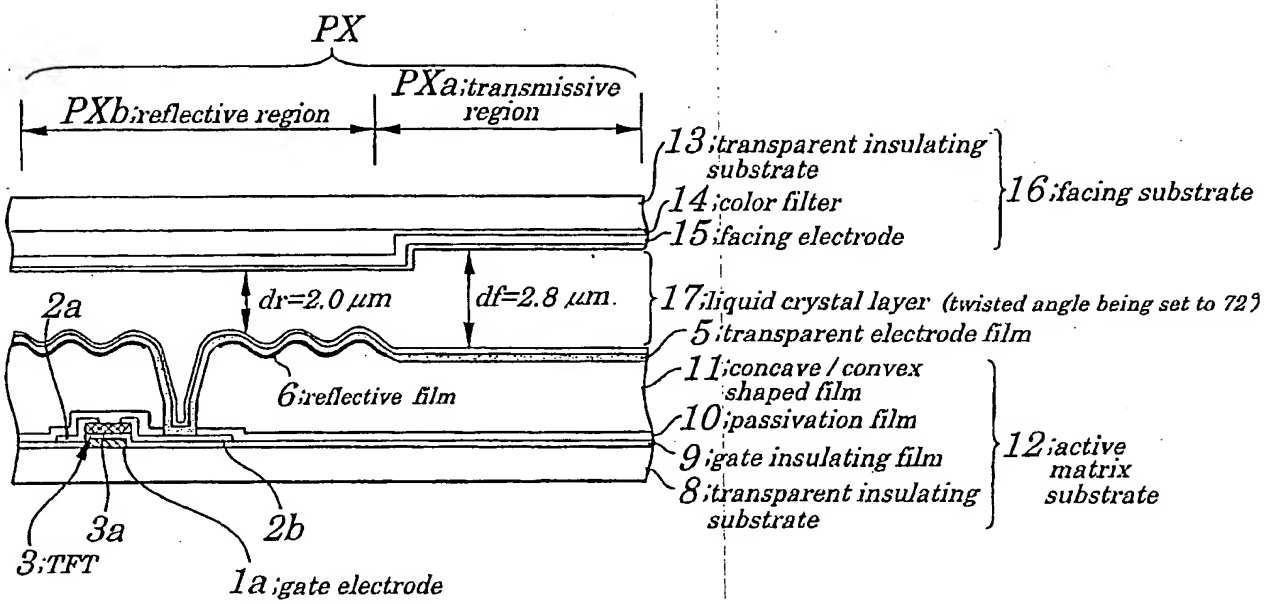
PX
PXa;transmissive region
PXb;reflective region
13;transparent insulating substrate
14;color filter
15;facing electrode
16;facing substrate
dr=2.0 μm
df=2.8 μm
17;liquid crystal layer (twisted angle being set to 72°)
2a
5;transparent electrode film
11;concave / convex shaped film
6;reflective film
10;passivation film
9;gate insulating film
12;active matrix substrate
8;transparent insulating substrate
3a
2b
3;TFT
1a;gate electrode

FIG.13

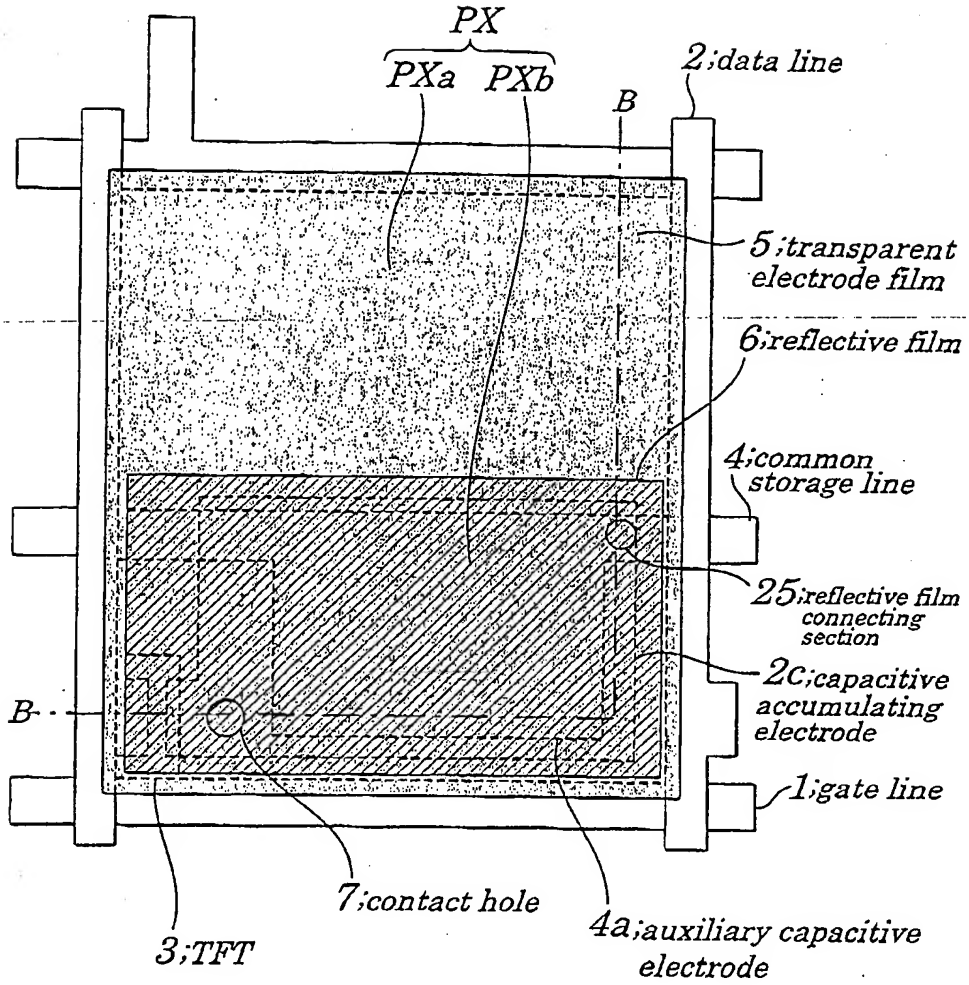
PX
PXa
PXb
2;data line
B
5;transparent electrode film
6;reflective film
4;common storage line
25;reflective film connecting section
2c;capacitive accumulating electrode
B
1;gate line
7;contact hole
3;TFT
4a;auxiliary capacitive electrode

FIG.14A

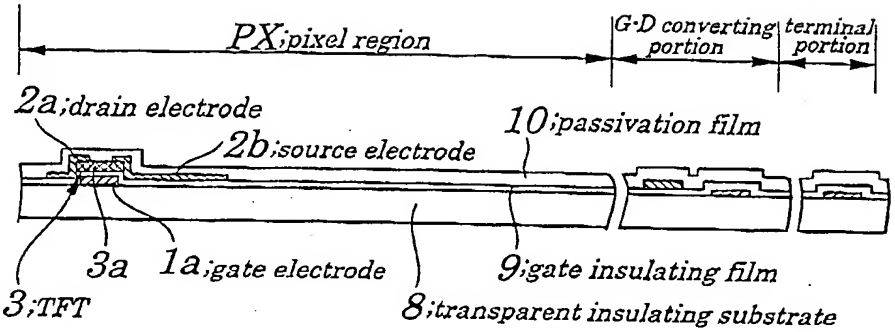

FIG.14B

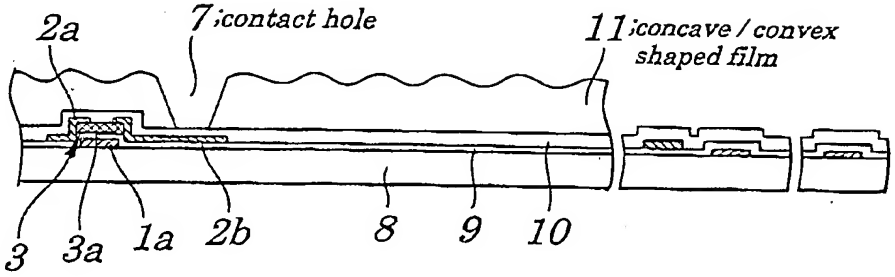

FIG.14C

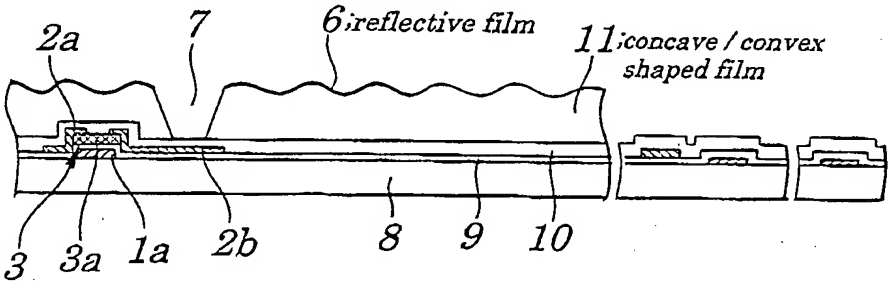

FIG.15A

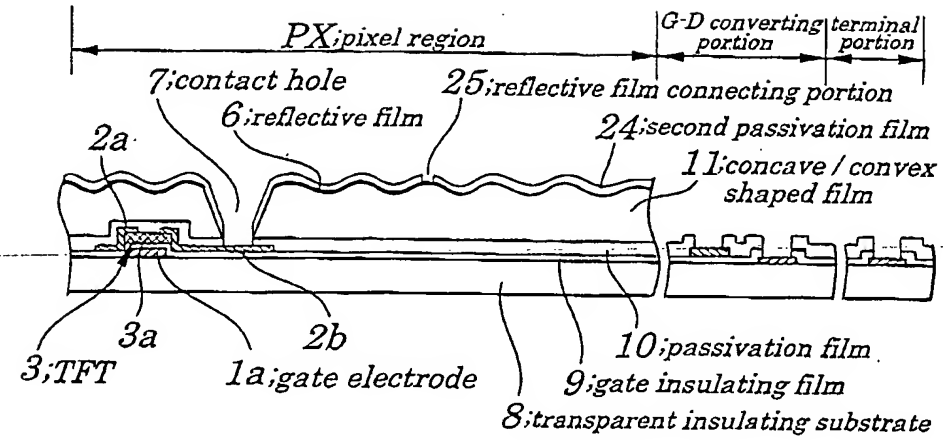

FIG.15B

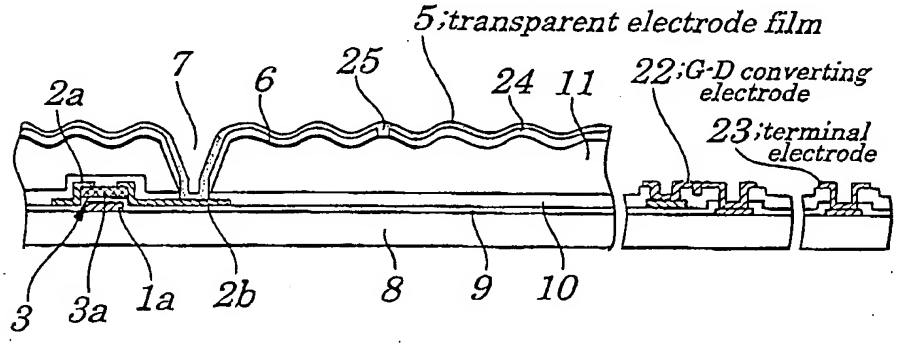

FIG.16

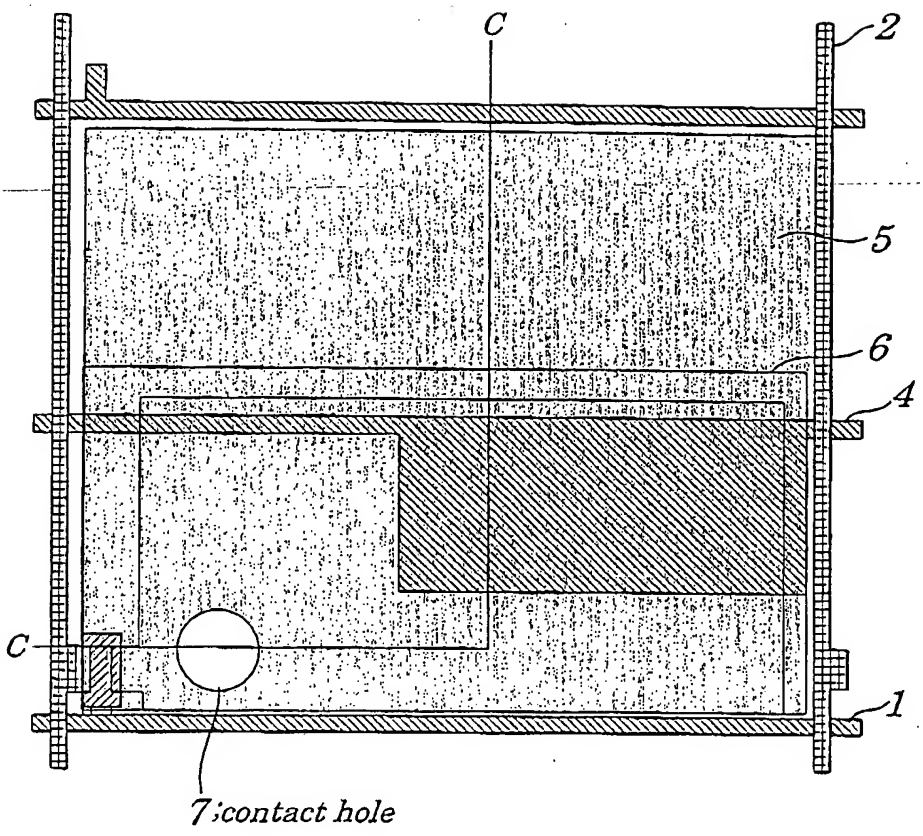

FIG.17

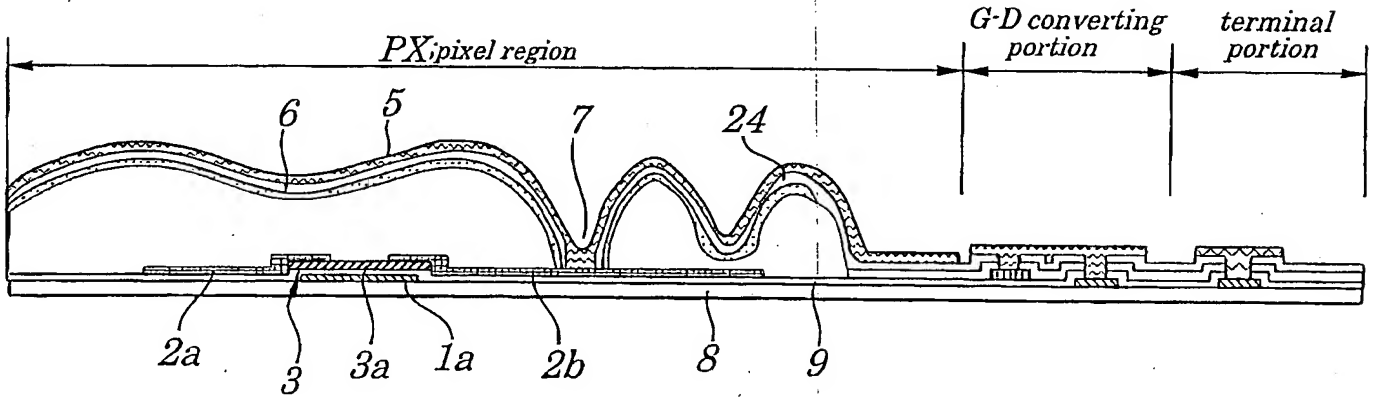
PX;pixel region
G-D converting portion
terminal portion
6
5
7
24
2a
3
3a
1a
2b
8
9

FIG.18

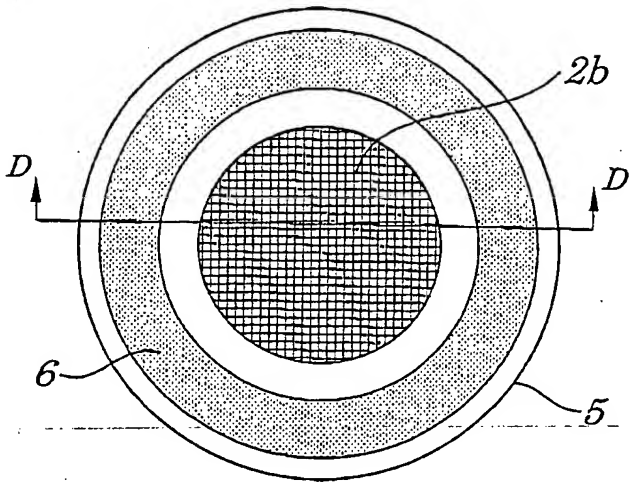
2b
D
D
6
5

FIG.19

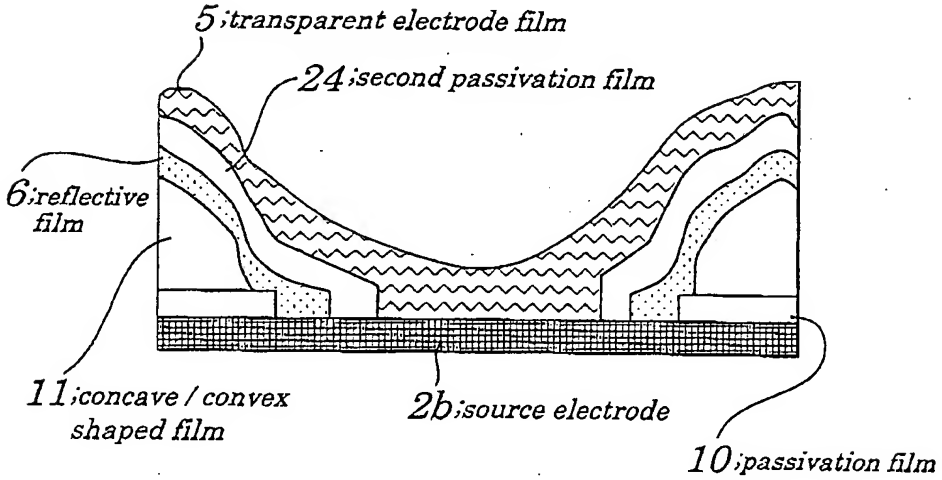
5;transparent electrode film
24;second passivation film
6;reflective film
11;concave / convex shaped film
2b;source electrode
10;passivation film

FIG.20A

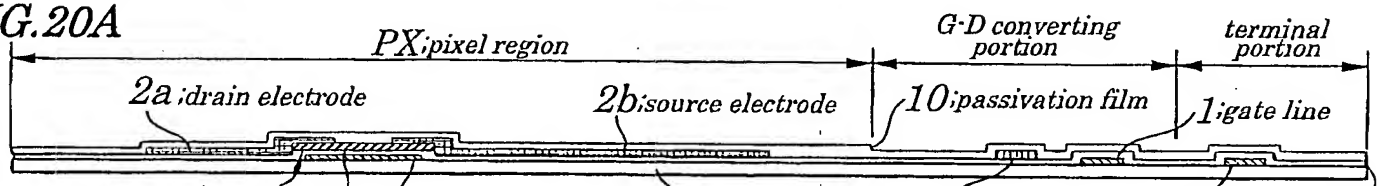

FIG.20B

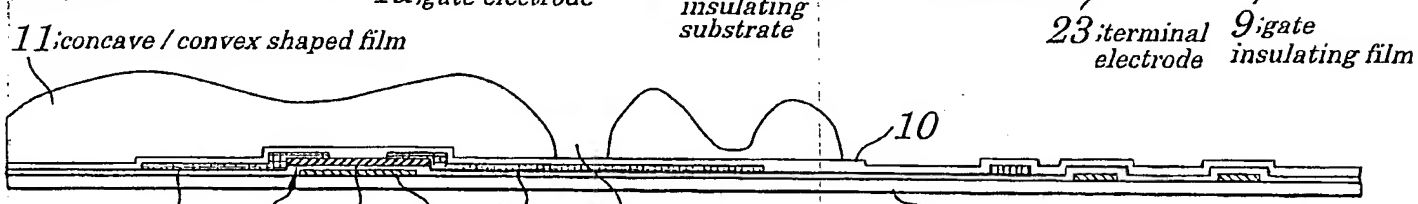

FIG.20C

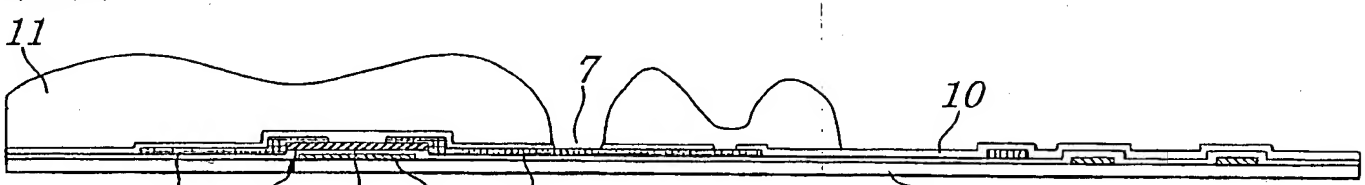

FIG.20D

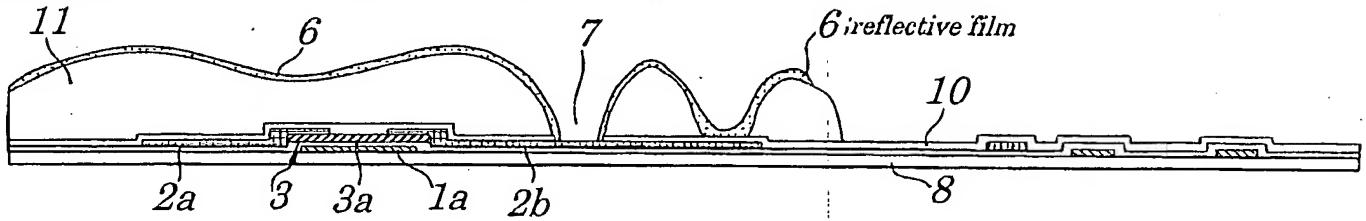

FIG.21A

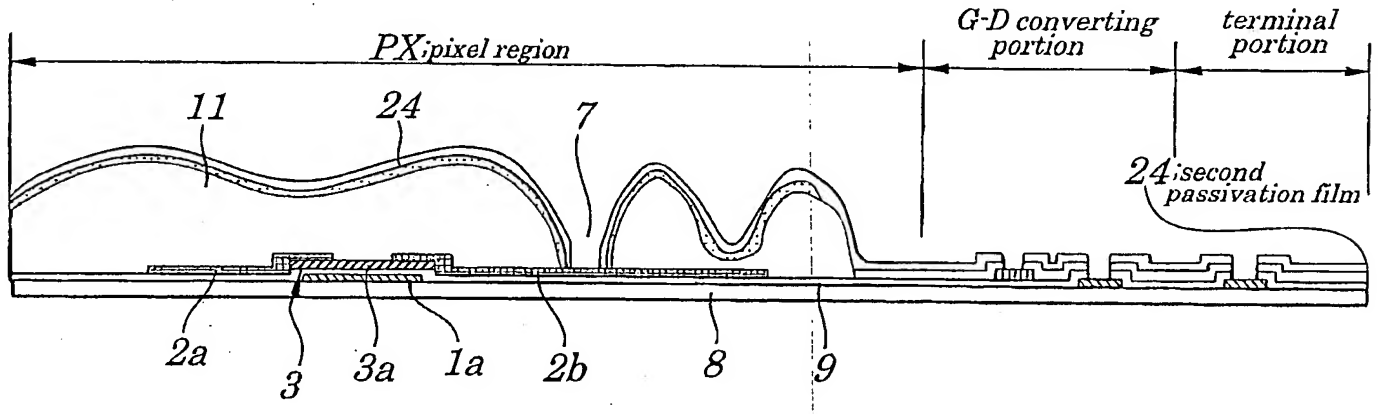

FIG.21B

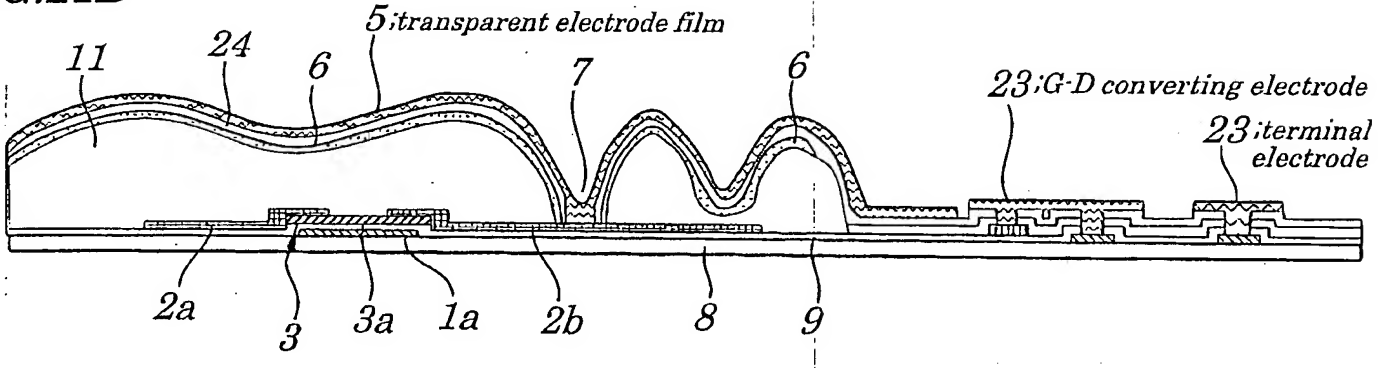

FIG.22

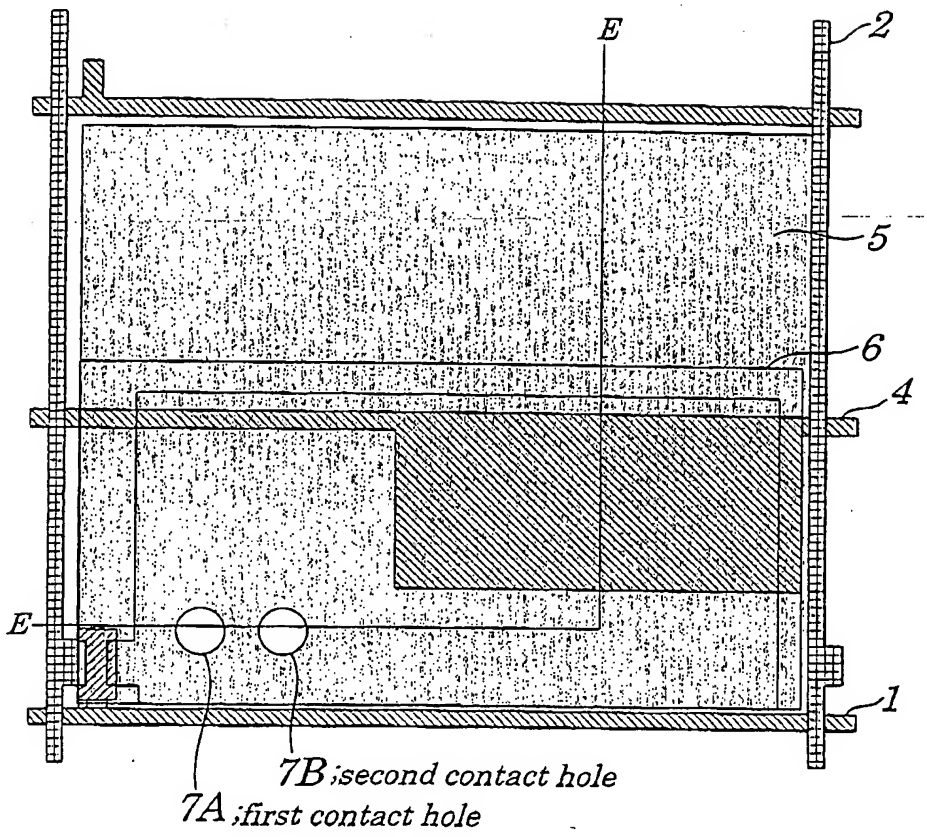

FIG.23

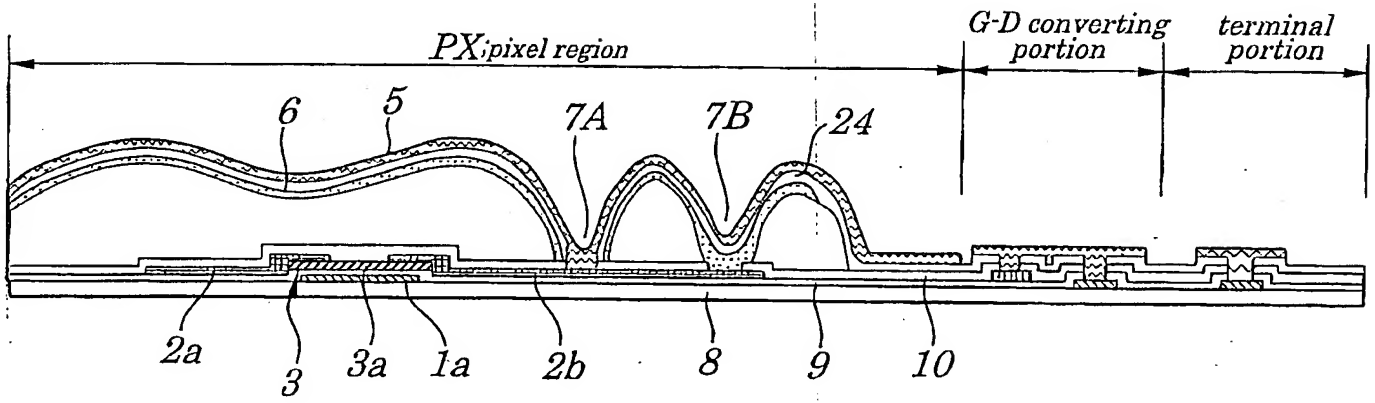
PX;pixel region
G-D converting portion
terminal portion
6
5
7A
7B
24
2a
3
3a
1a
2b
8
9
10

FIG.24

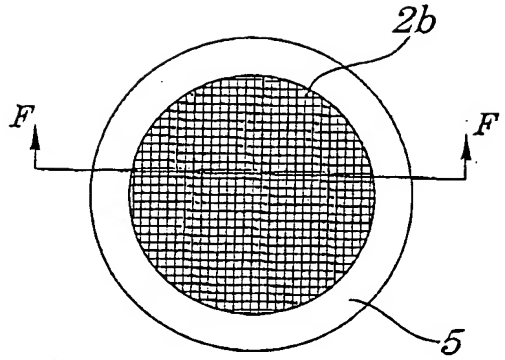
2b
F
F
5

FIG.25

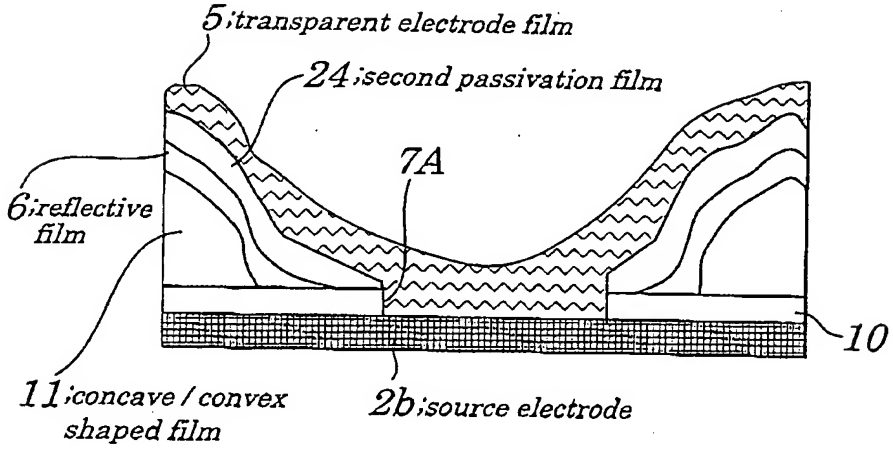
5;transparent electrode film
24;second passivation film
7A
6;reflective film
10
11;concave / convex shaped film
2b;source electrode

FIG.26

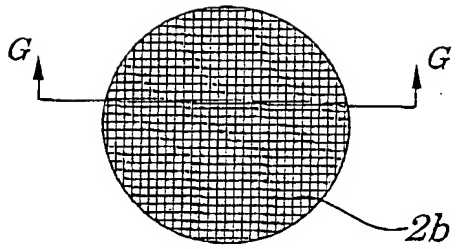
G
G
2b

FIG.27

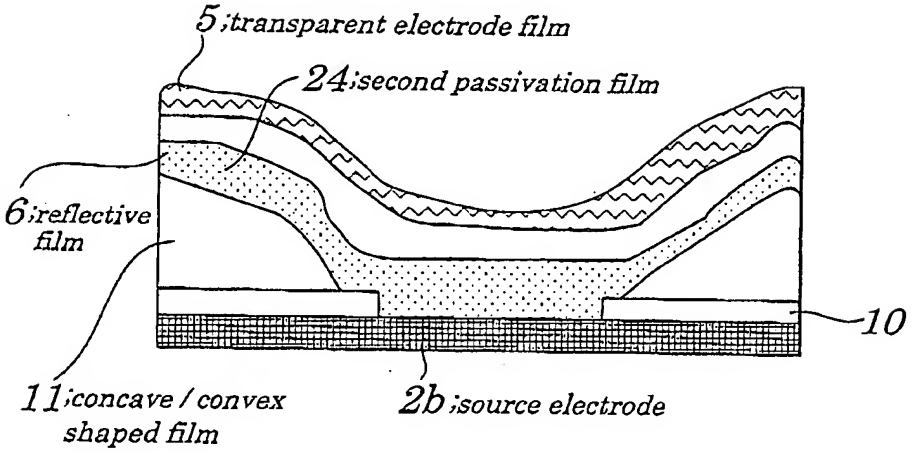
5;transparent electrode film
24;second passivation film
6;reflective film
10
11;concave / convex shaped film
2b;source electrode

FIG.28A

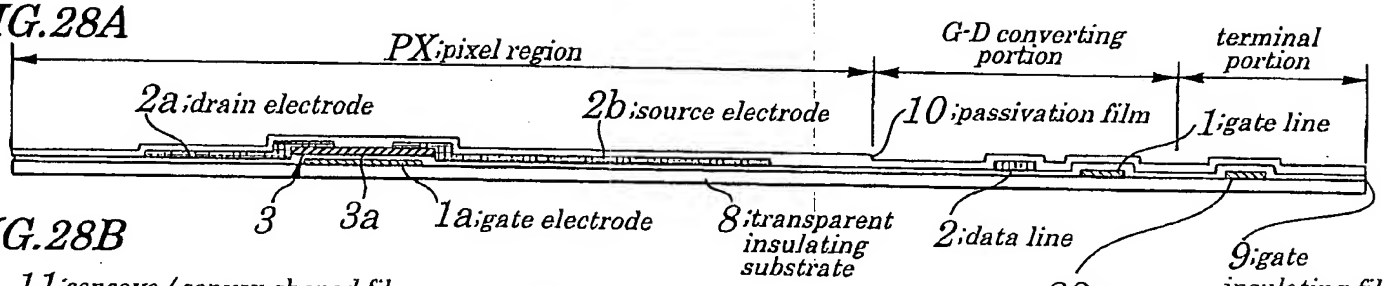

FIG.28B

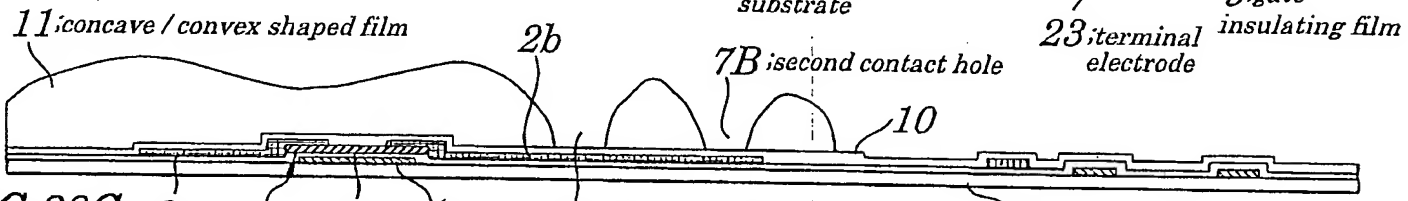

FIG.28C

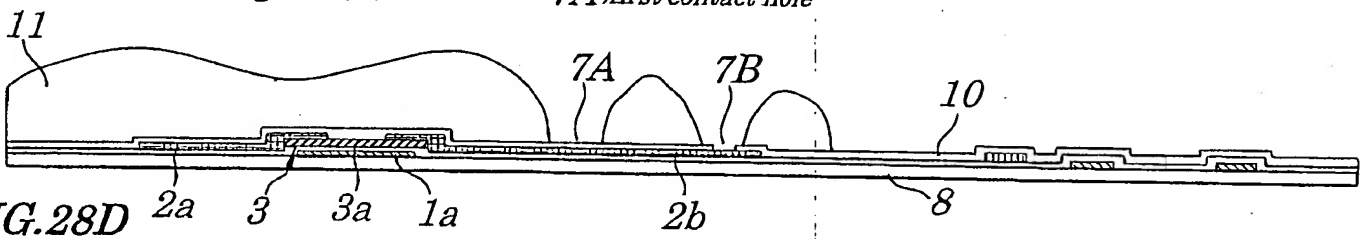

FIG.28D

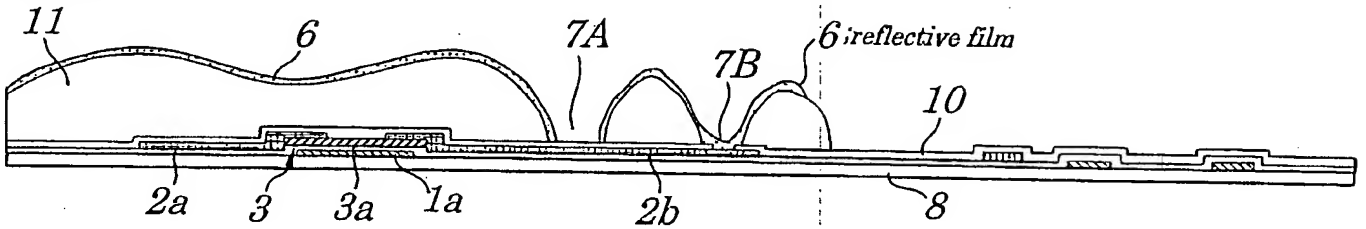

FIG.29A

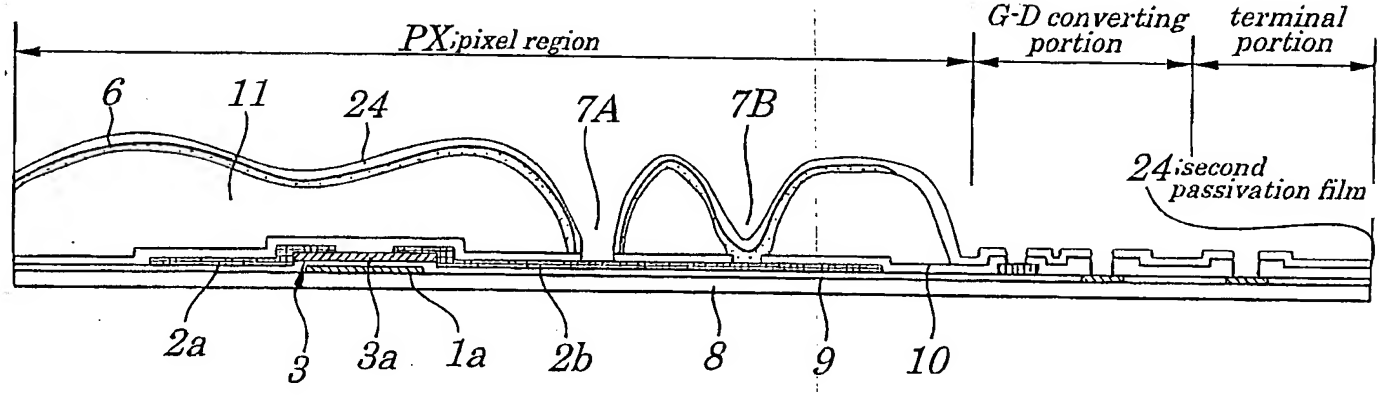

FIG.29B

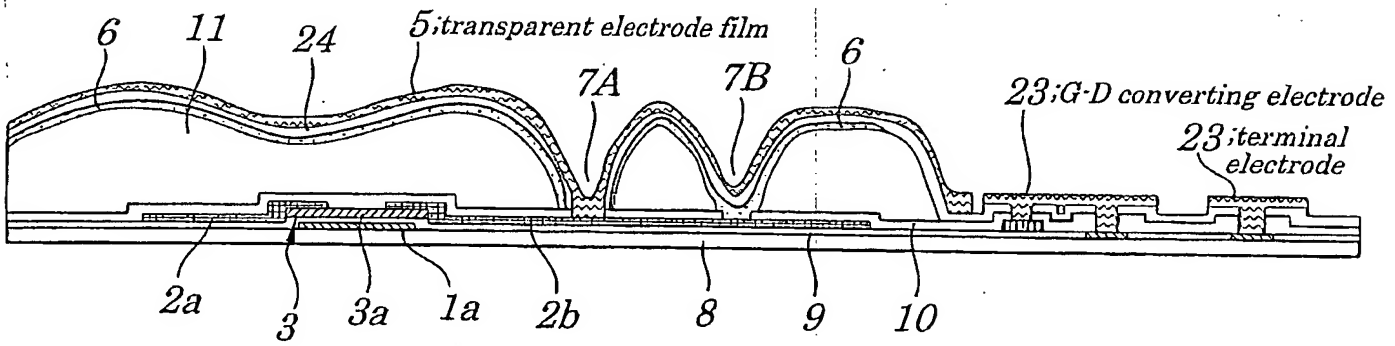

FIG.30 (PRIOR ART)

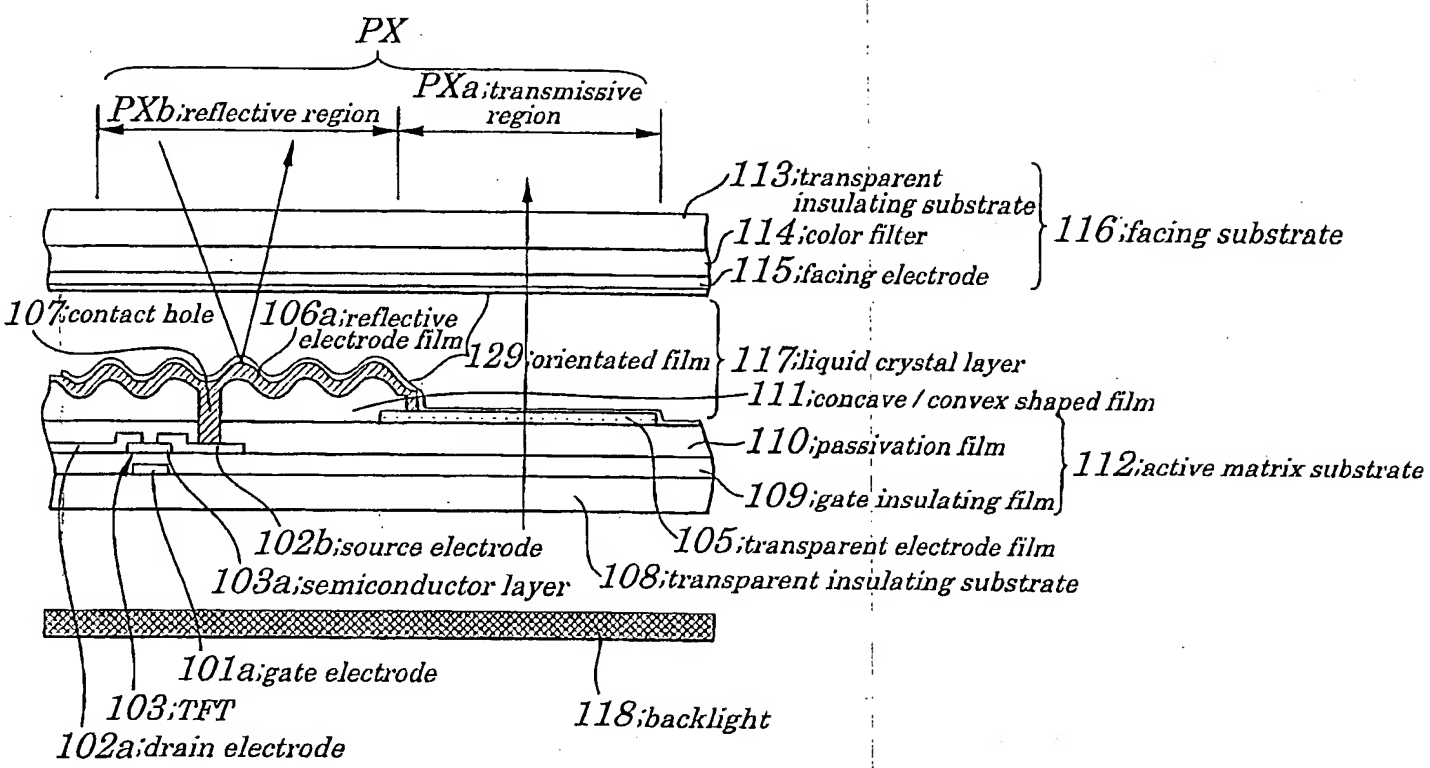

FIG.31A(PRIOR ART)

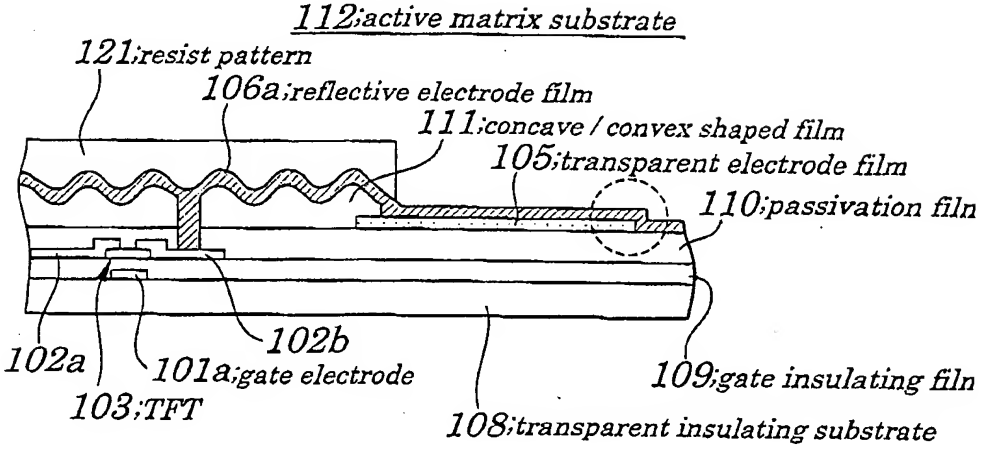

FIG.31B(PRIOR ART)

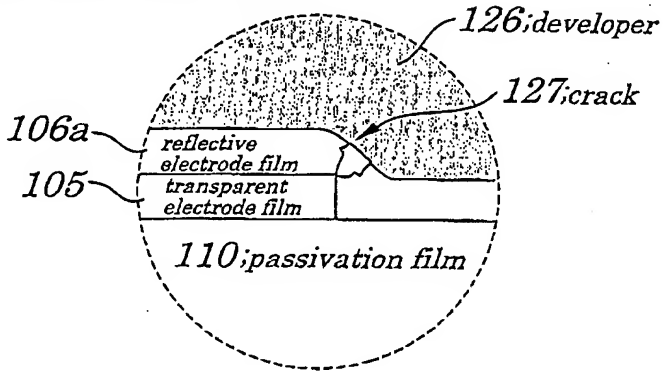

FIG.31C(PRIOR ART)

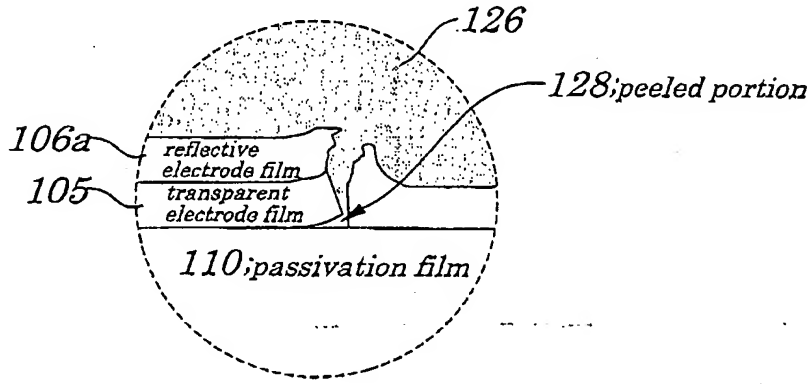

FIG.32

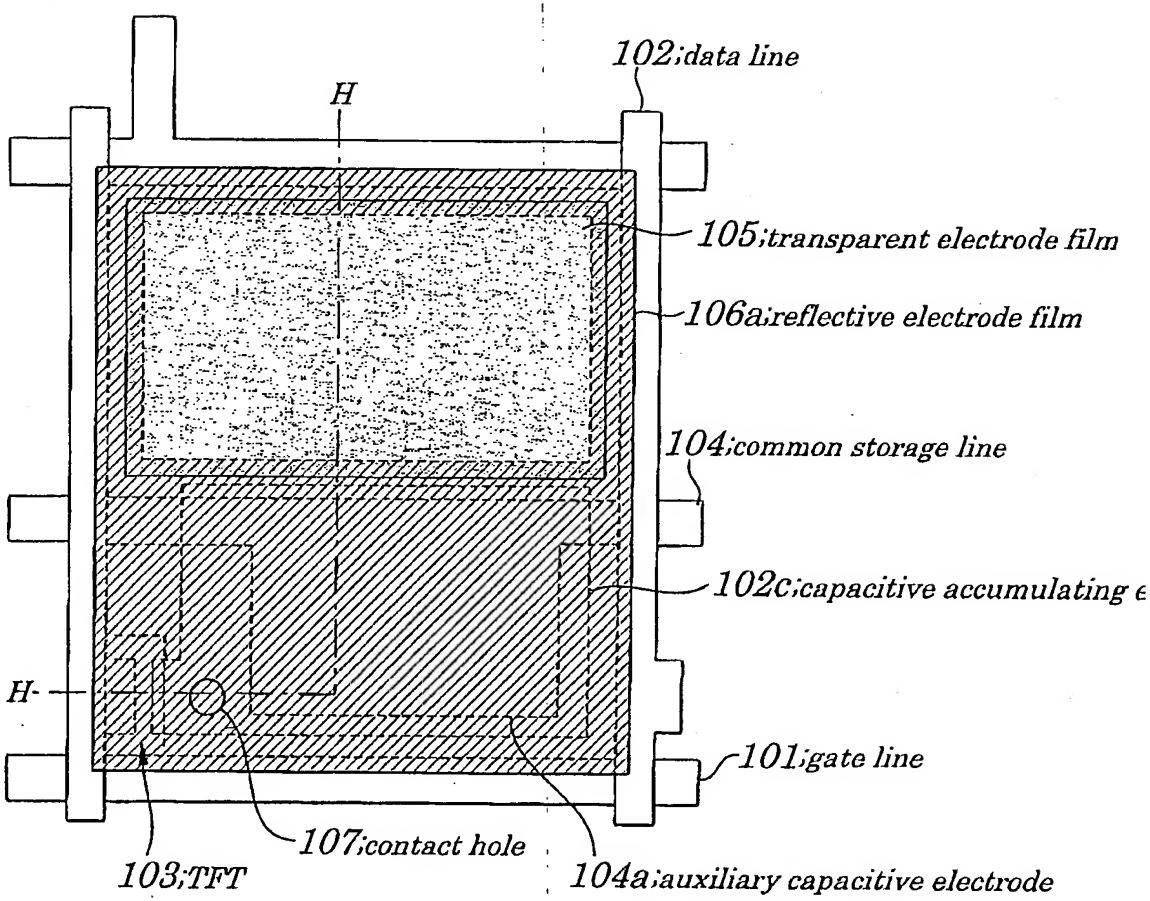
102;data line
H
105;transparent electrode film
106a;reflective electrode film
104;common storage line
102c;capacitive accumulating e
H
101;gate line
107;contact hole
103;TFT
104a;auxiliary capacitive electrode

FIG.33

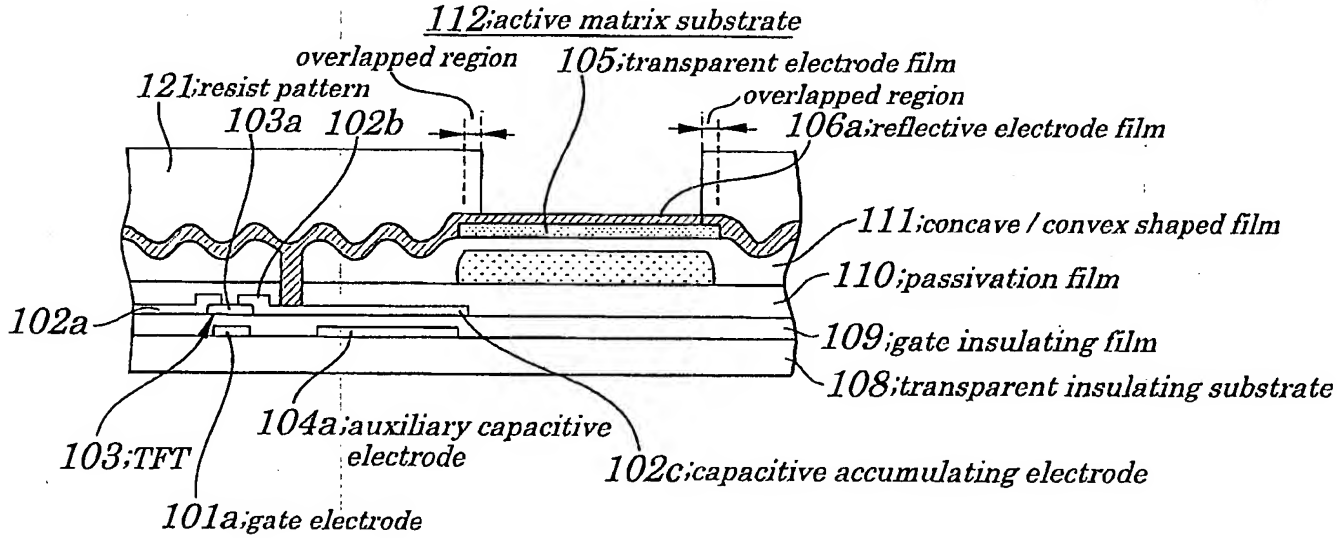
112;active matrix substrate
overlapped region
105;transparent electrode film
121;resist pattern
103a
102b
overlapped region
106a;reflective electrode film
111;concave / convex shaped film
110;passivation film
102a
109;gate insulating film
108;transparent insulating substrate
104a;auxiliary capacitive electrode
103;TFT
102c;capacitive accumulating electrode
101a;gate electrode

FIG.34 (PRIOR ART)

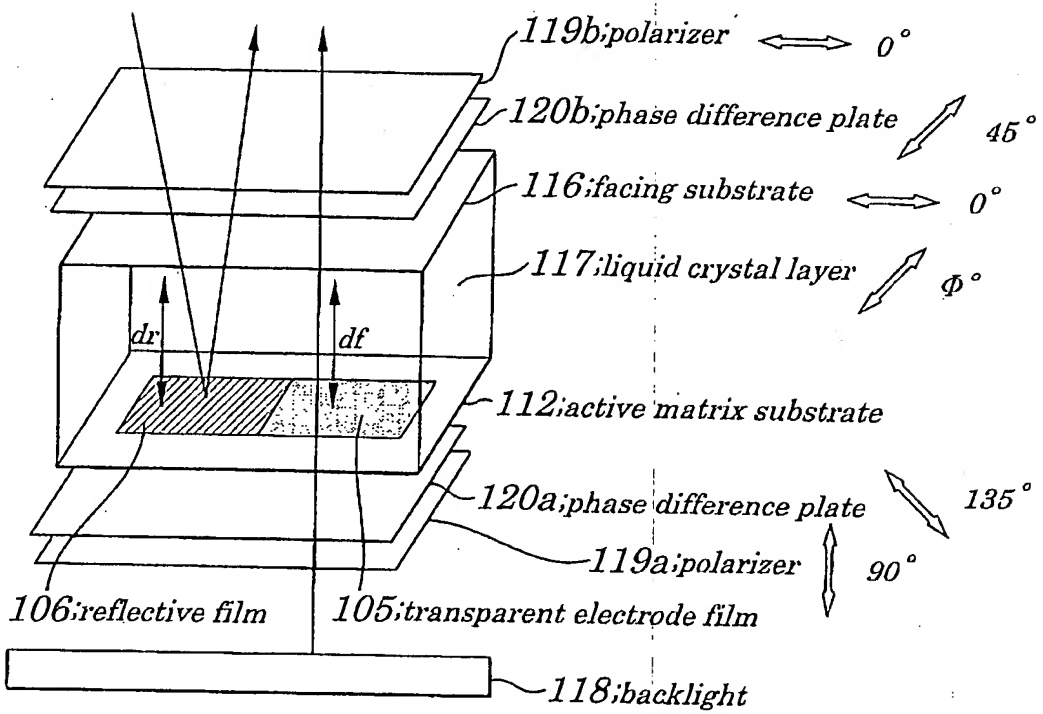

FIG.35 (PRIOR ART)

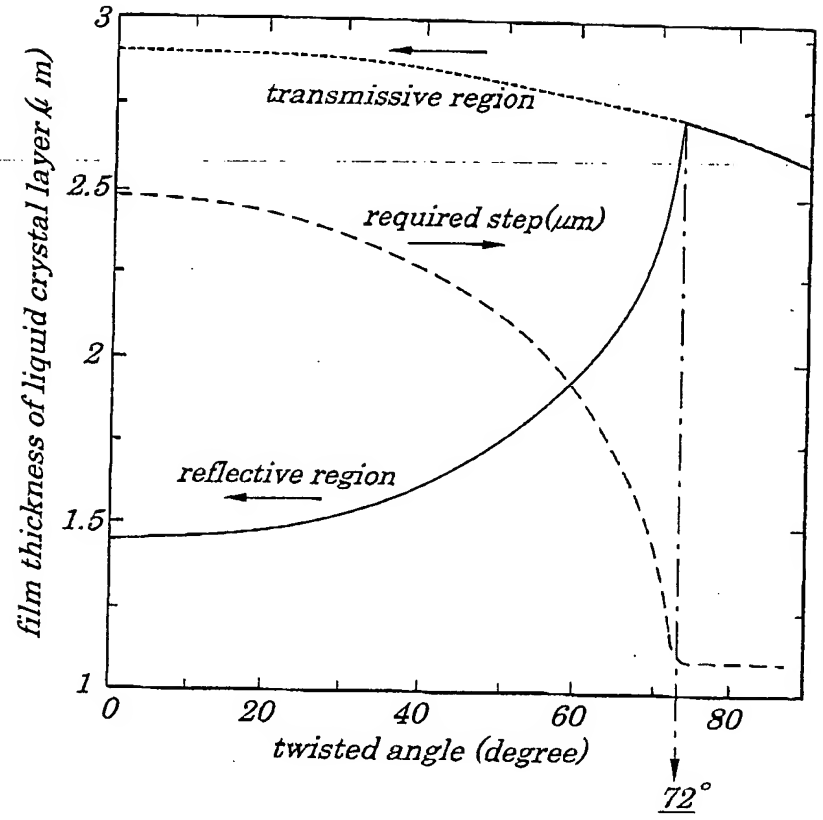

FIG.36 (PRIOR ART)